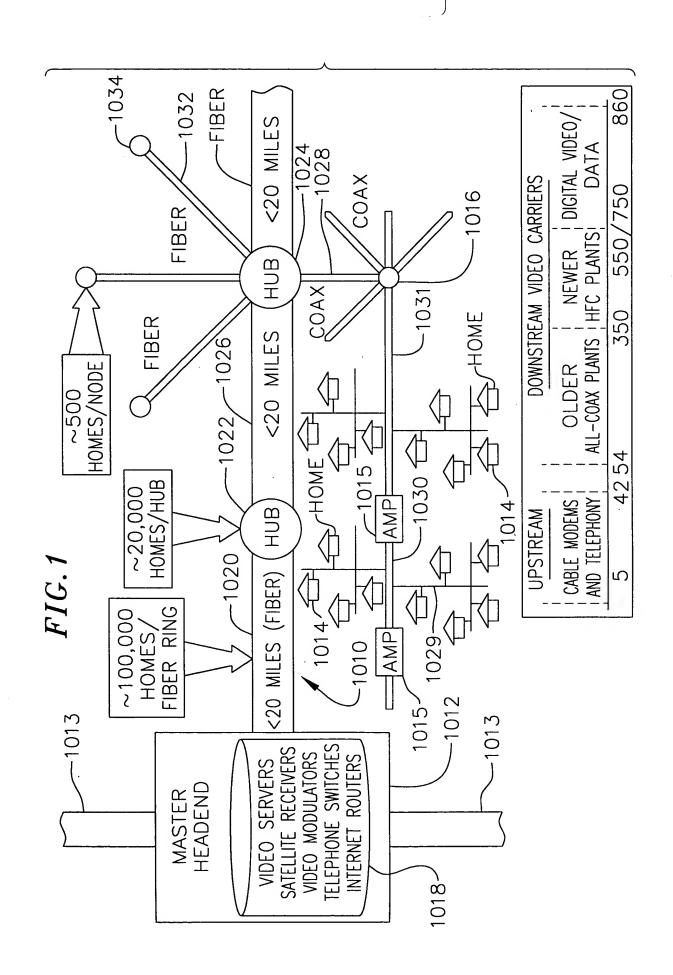
Attorney: Richard J. Paciulan
Docket No.: 51956/RJP/B600
Inventor(s): Theodore F. Rabenko, et al.
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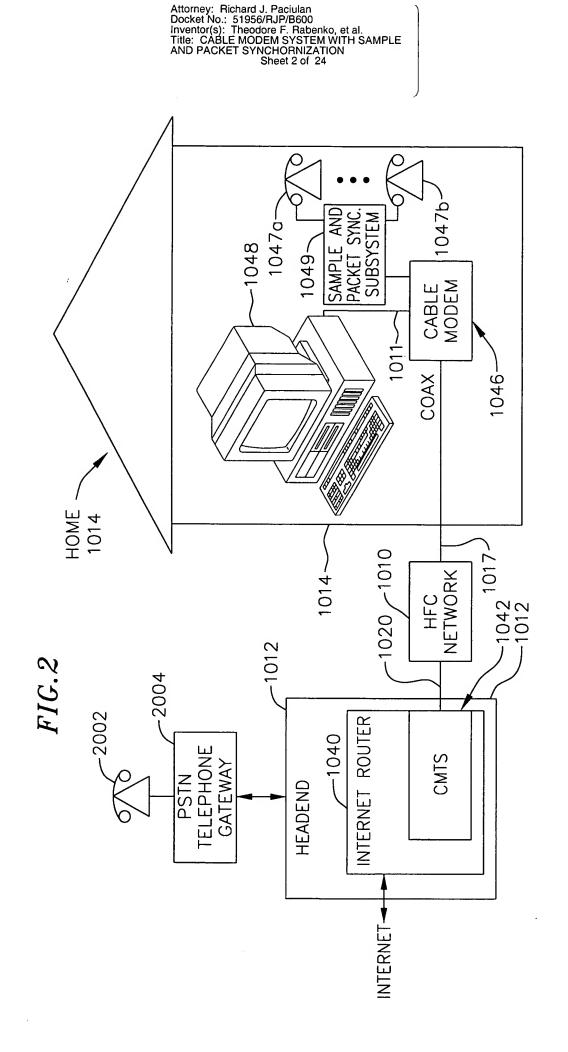


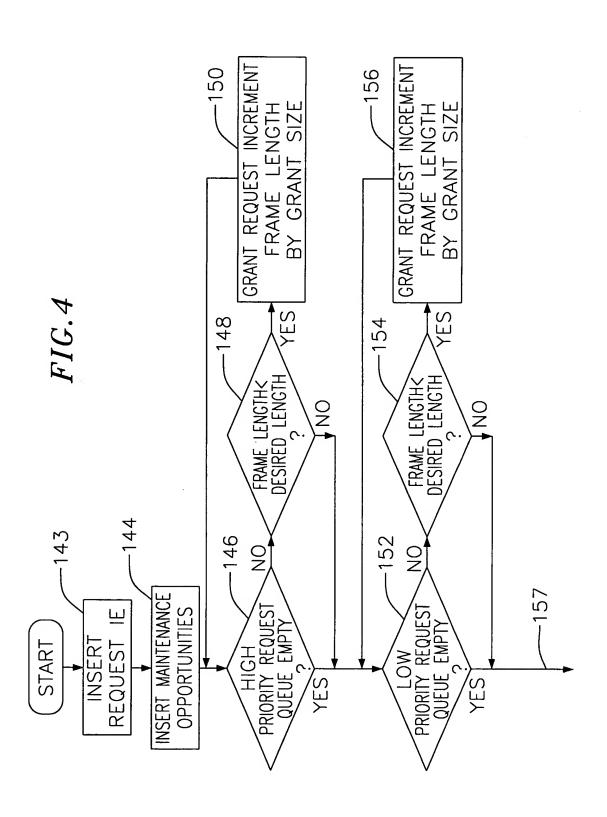
FIG.3

TRANSMITTED ON DOWNSTREAM CHANNEL BY THE CMTS

PDU

MAP

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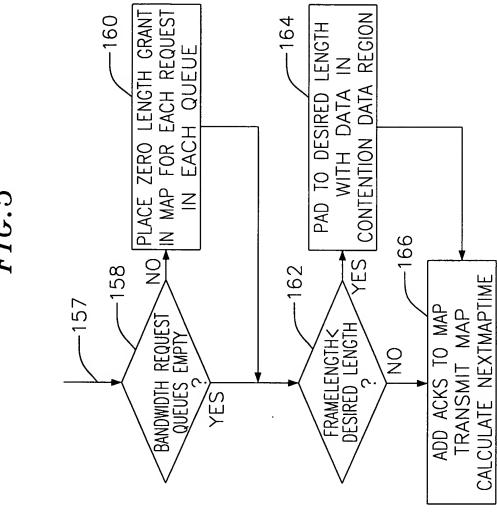
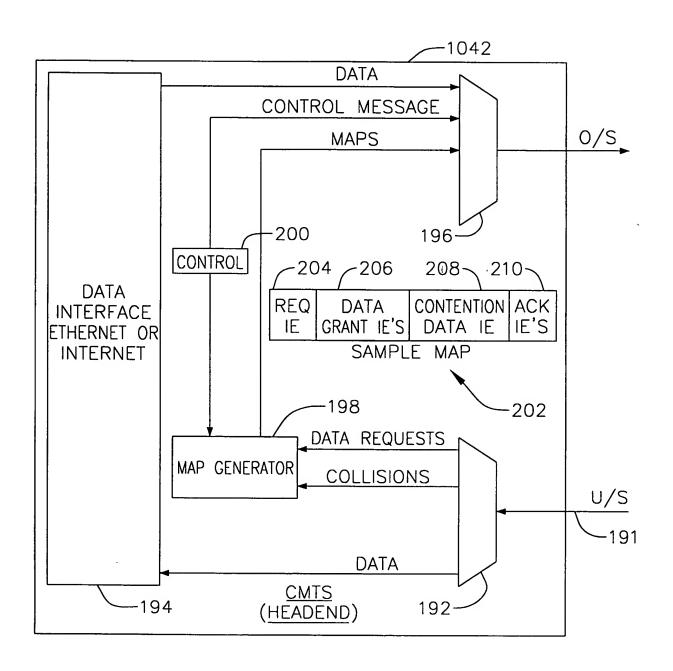


FIG.5

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FIG.6



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Sheet 7 of 24 -1046e MODEM CABLE R=VALID, UNCOLLIDED, REQUEST 1046d 186 CONTENTION DATA 188 168 DATA MODEM CABLE  $\times$ 1046c SAMPLE UPSTREAM FRAME DESCRIBED 182 DATA Y DATA Z MAINTENANCE MAP 184 STATION ONE MODEM CABLE X=COLLIDED REQUEST OR CONTENTION DATA PACKET 80 78 1046b GRANTED GRANTED 176 OPPORTUNI CMtx MODEM CABLE 1046a 183 175 CONTENTION  $\alpha$ REQUEST

 $\times$ 

 $\simeq$ 

1817

191~

MAP

DESCRIPTOR

CHANNEL

DATA

MAP

DATA

DATA

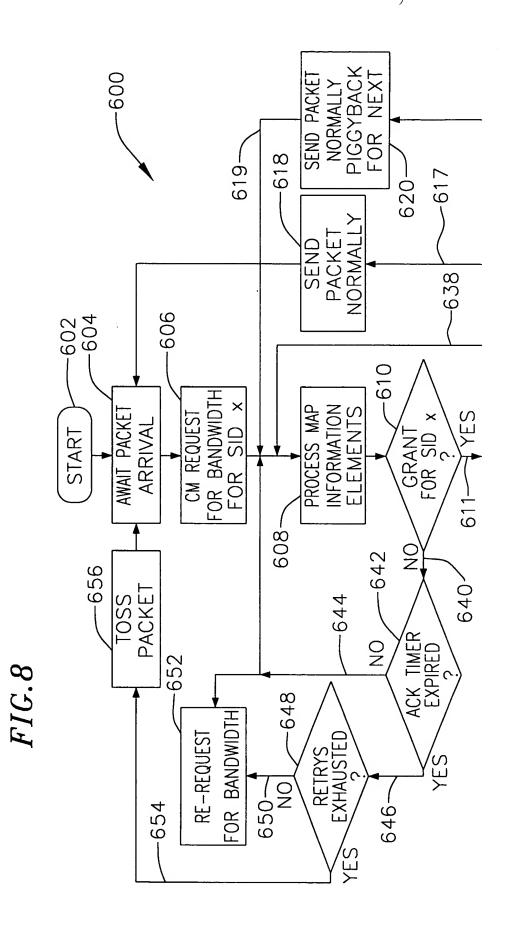
MAP

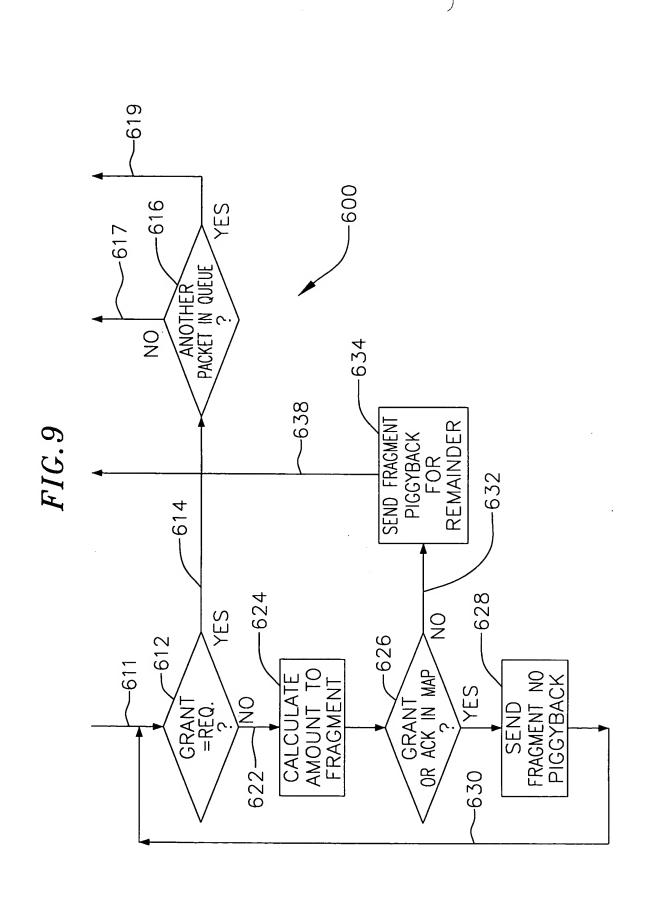
STAMP TIME

MODEM

CABLE

FIG. 7





Attorney: Richard J. Paciulan Docket No.: 51956/RJP/B600 Inventor(s): Theodore F. Rabenko, et al. Title: CABLE MODEM SYSTEM WITH SAMPLE AND PACKET SYNCHORNIZATION Sheet 9 of 24 Attorney: Richard J. Paciulan
Docket No.: 51956/RJP/B600
Inventor(s): Theodore F. Rabenko, et al.
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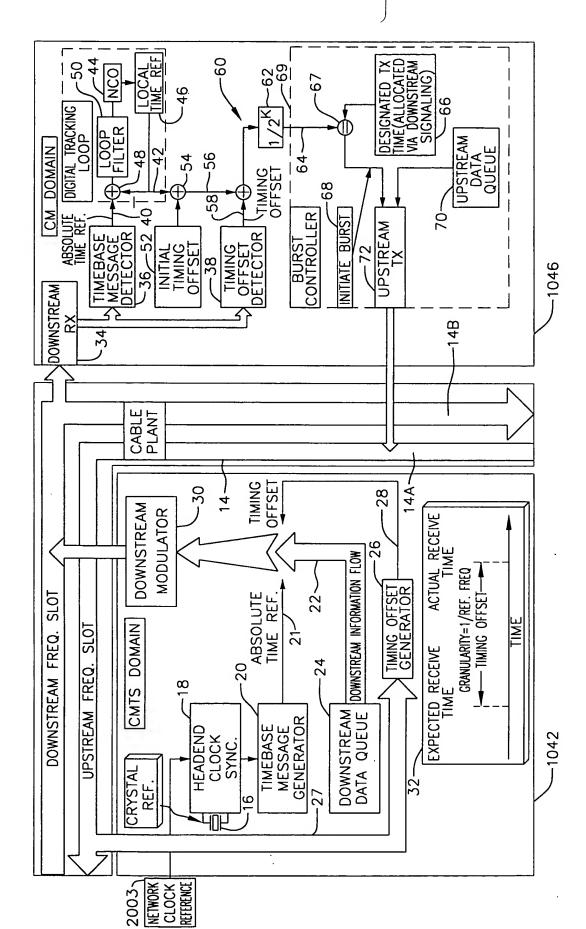


FIG. 10

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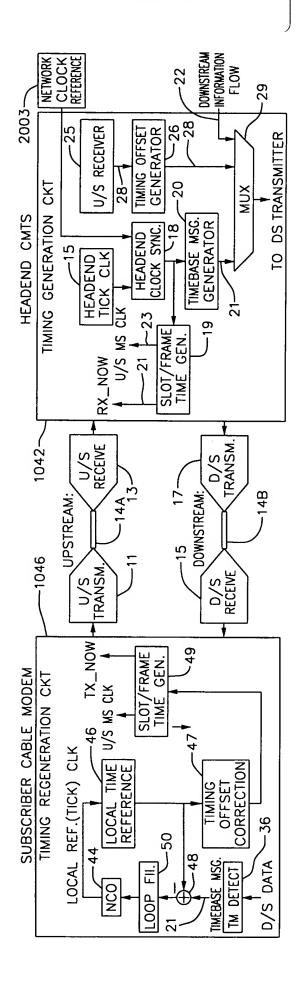
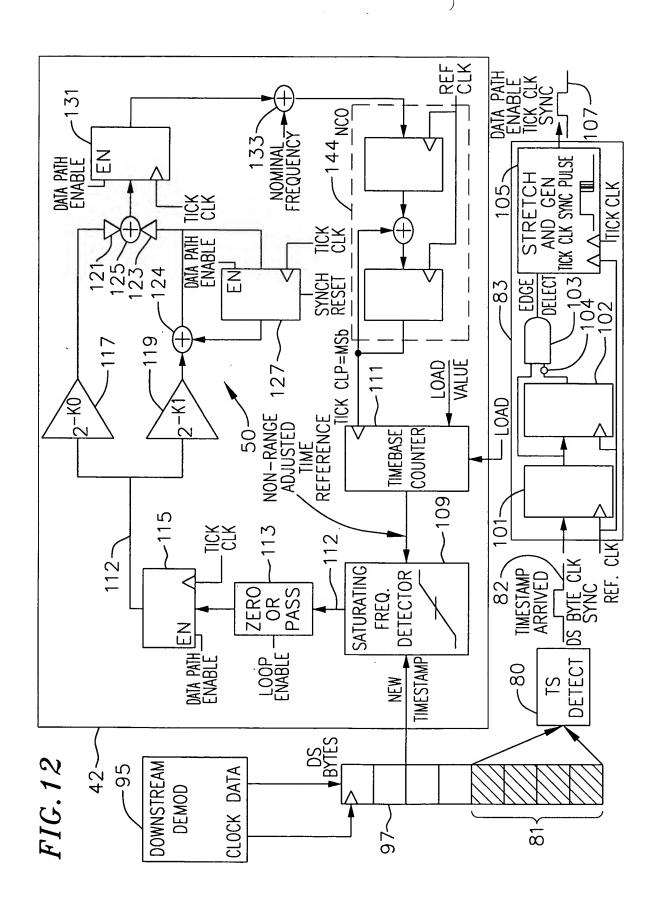


FIG. 11

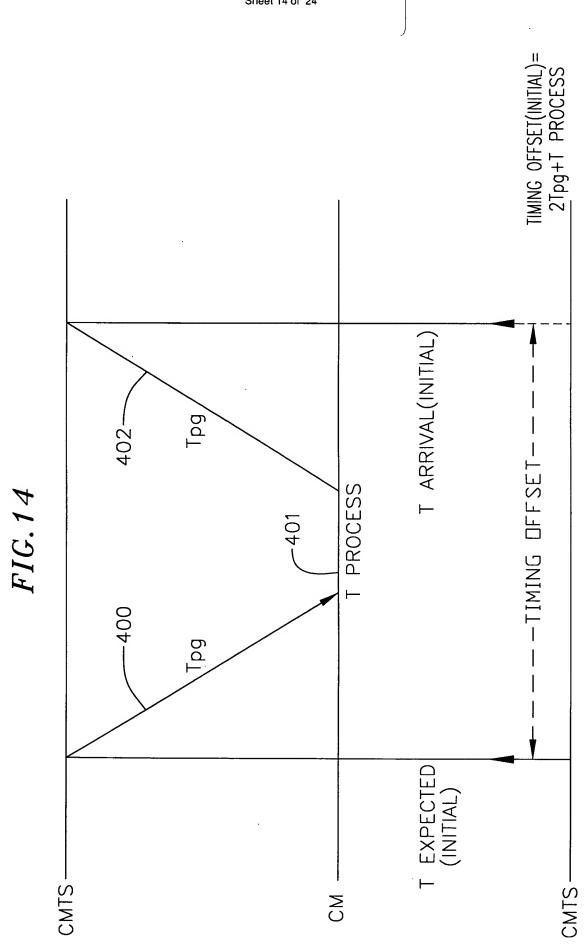
Attorney: Richard J. Paciulan
Docket No.: 51956/RJP/B600
Inventor(s): Theodore F. Rabenko, et al.
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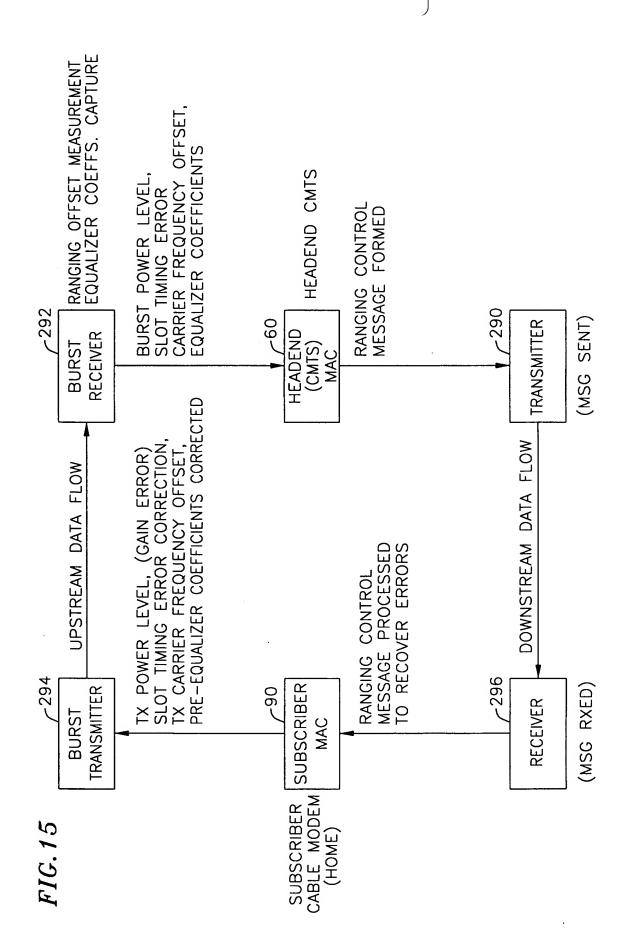
FIG. 13

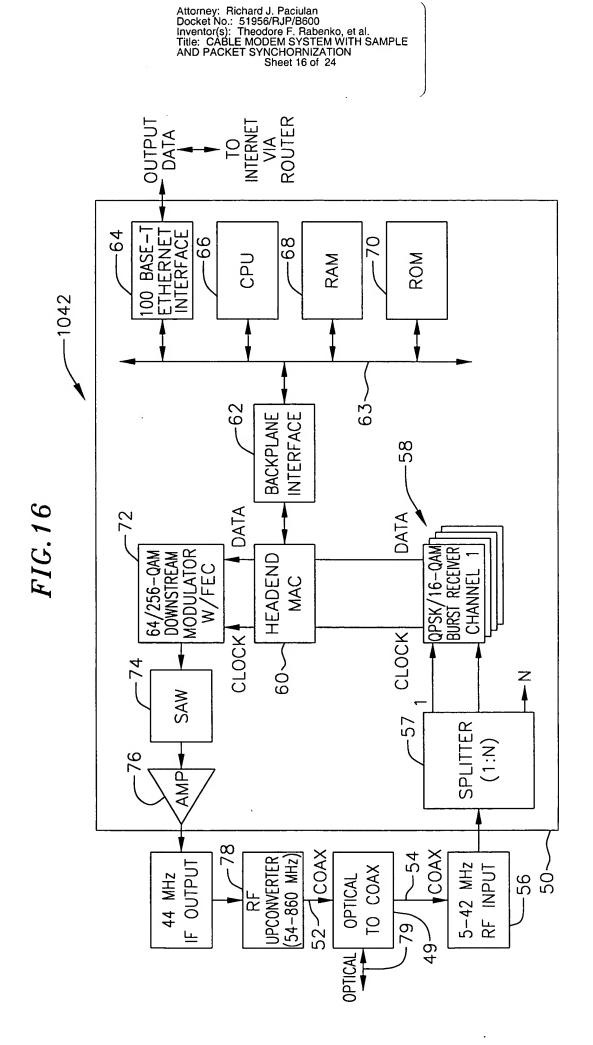
| UPDATE RATE  | COARSE COEFFS                                   | FINE COEFFICIENTS   |
|--------------|---|---|
| 1kHz(1ms)    | -11<br>K0=2<br>K1=2 <sup>-15</sup><br>(BW=50Hz) | K0=2 $K1=2$ $(BW=1Hz)$  |
| 300Hz(3.3ms) | K0=2<br>K1=2 <sup>-15</sup><br>(BW=20Hz)        | 0.00000000000000000000000000000000000                         |
| 100Hz(10ms)  | K0=2 $K1=2$ $(BW=10Hz)$                         | 0.00000000000000000000000000000000000                         |
| 50Hz(20ms)   | -14<br>K0=2-17<br>K1=2-17<br>(BW=5Hz)           | -16<br>K0=2 <sup>-21</sup><br>K1=2 <sup>-21</sup><br>(BW=1Hz) |
| 30Hz(33ms)   | $K0=2^{-15}$ $K1=2^{-18}$ $(BW=3Hz)$            | 0.00000000000000000000000000000000000                         |
| 10Hz(100ms)  | K0=2 $K1=2$ $(BW=1Hz)$                          | 0.00000000000000000000000000000000000                         |
| 5Hz(200ms)   | K0=2 $K1=2$ $(BW=1Hz)$                          | -18<br>K0=2<br>K1=2 <sup>-20</sup><br>(BW=1Hz)                |

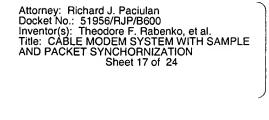


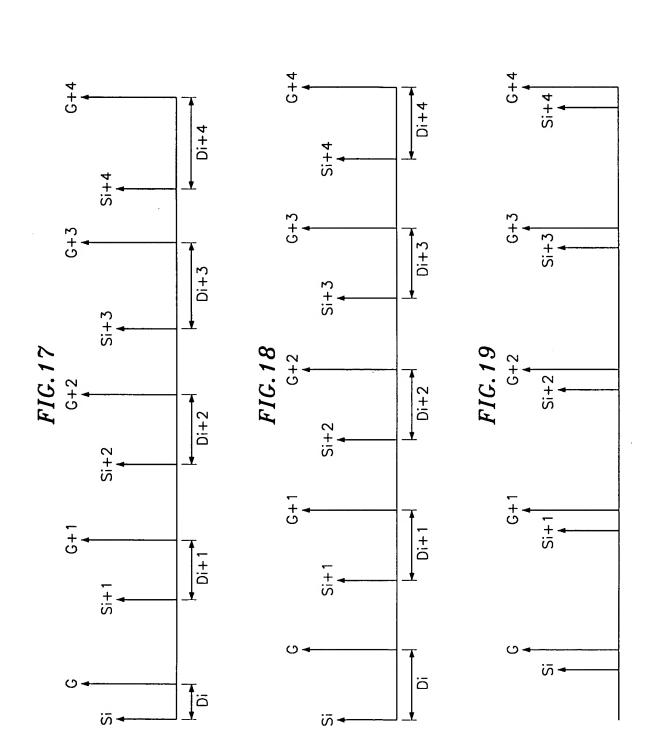
Attorney: Richard J. Paciulan Docket No.: 51956/RJP/B600 Inventor(s): Theodore F. Rabenko, et al. Title: CABLE MODEM SYSTEM WITH SAMPLE AND PACKET SYNCHORNIZATION Sheet 14 of 24

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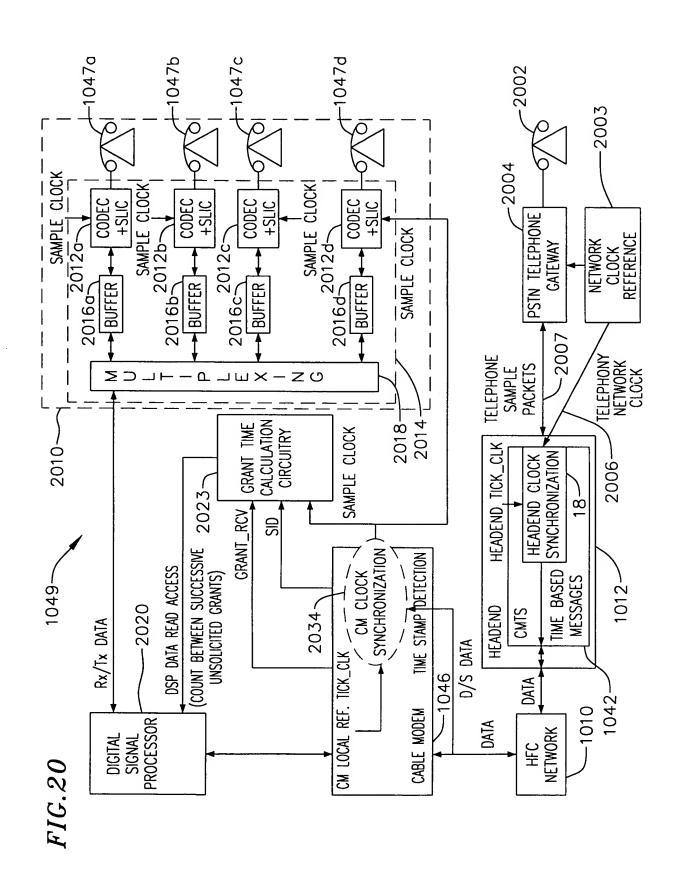








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FIG.21

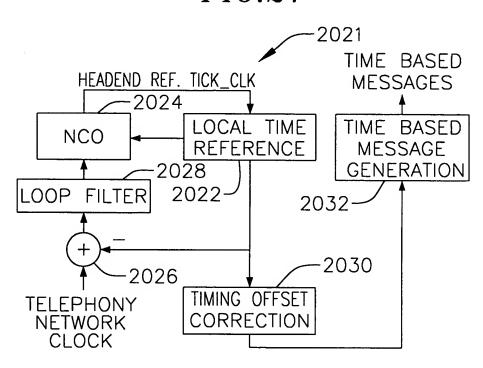
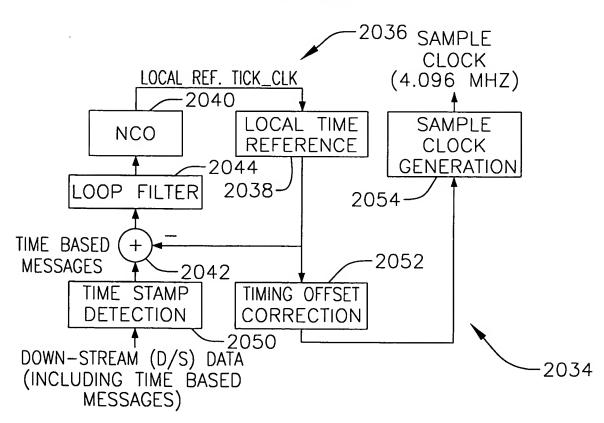
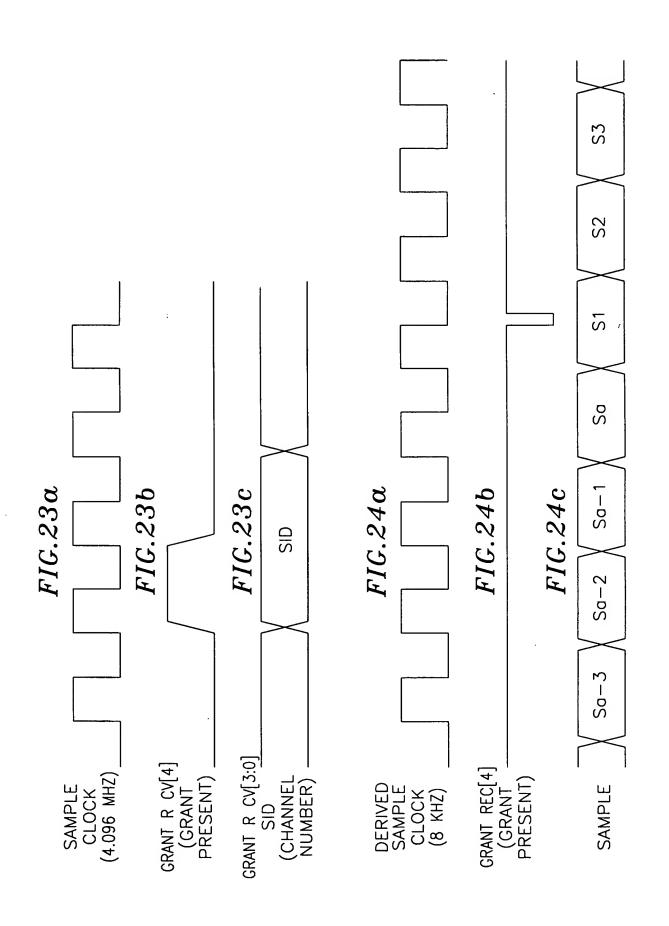


FIG.22



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Inventor(s): Theodore F. Rabenko, et al.
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FIG.25

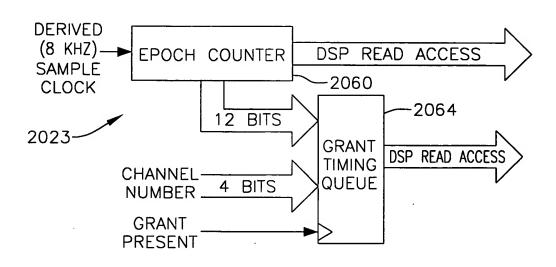
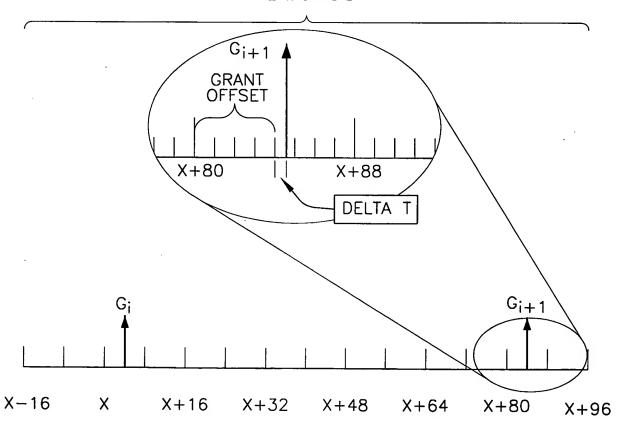
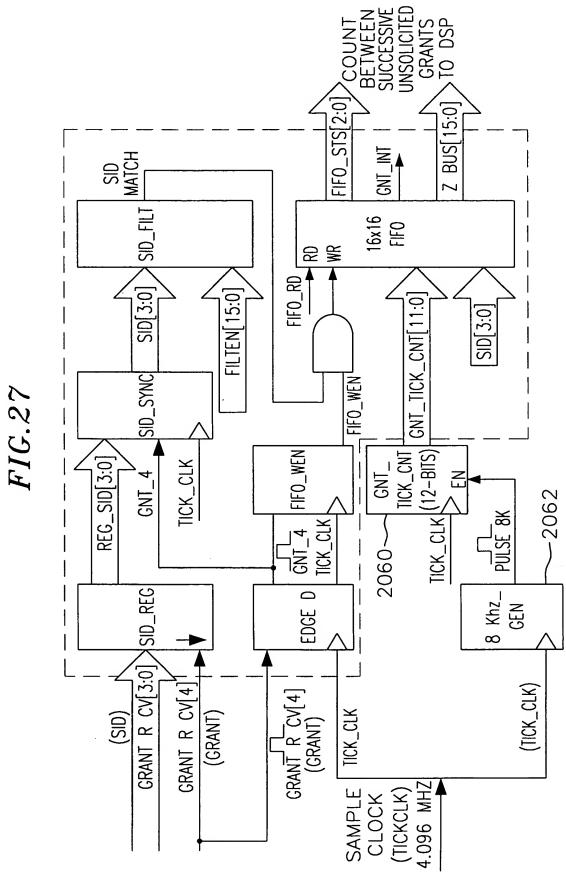


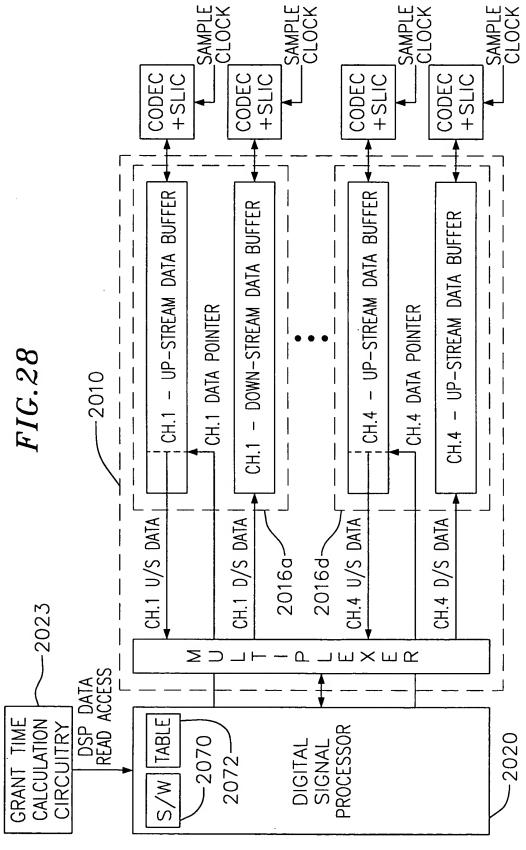
FIG.26



Attorney: Richard J. Paciulan
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Inventor(s): Theodore F. Rabenko, et al.
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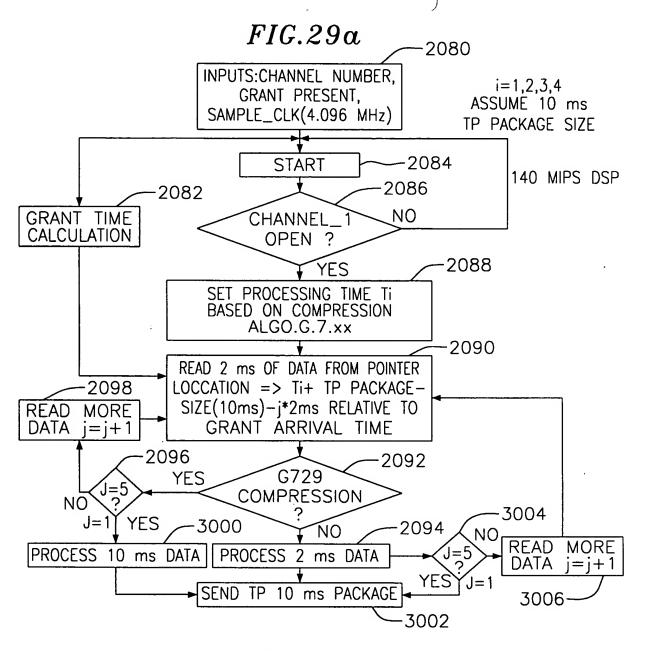


FIG.29b

